Replacement diode arrays

Industrial Microphotonics Company - a division of TRW laser company Cutting Edge Optronics Inc (St Charles, MO, USA) - now offers replacement diode-pumped laser arrays that are compatible with models discontinued by other manufacturers.

With the transfer of TRW Laser Produced Plasma extreme ultraviolet laser activities, products now range from high-power 1 W semiconductor lasers to multi-kW diode-pumped solid-state lasers for scientific, industrial, aerospace, and medical applications.

* CEO has made two new appointments to its sales staff:
• Dean Micke, promoted to Sales Manager of the laser diode division (from mechanical designer);
• Kevin O'Donnell as industrial laser sales manager (formerly an Account Manager in the Photonics Technologies Division of Corning Inc).

Technology: Optoelectronics

Cree Inc (Durham, NC, USA) has renewed its one-year purchase agreement with Osram Opto Semiconductors (Regensburg, Germany) for standard-bright-, high-brightness, Ultra-Bright and MegaBright SiC LEDs and wafer products (the largest such contract in Cree's history).

President and CEO Chuck Swoboda said, "*As we continue to develop our LED technology and introduce increased brightness levels while improving price/performance, we believe that we will be able to continue to penetrate new and emerging applications.*"

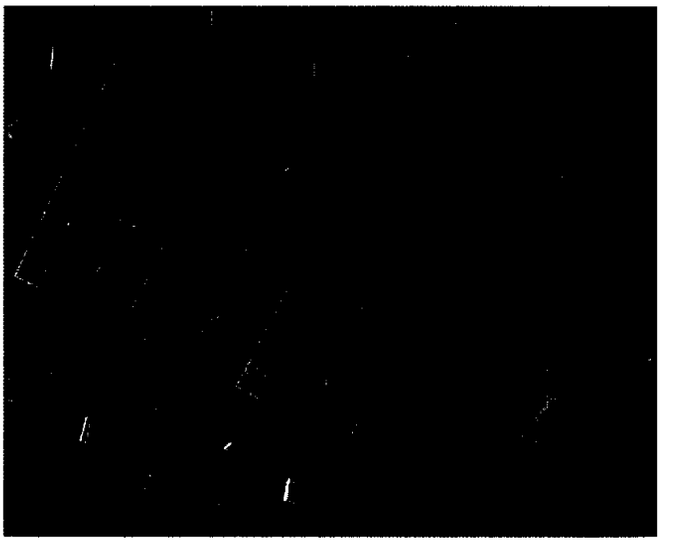
* Cree's fiscal Q1/2002 sales (to end-September) were US$43.2m (up 15% on a year ago), including product revenue of US$38.6m (up 12%) and contract revenues of US$4.6m (up 40%).

100 W 900 nm diode laser bars

Coherent Inc Semiconductor Division (CSD) (Santa Clara, CA, USA) has introduced high peak-power QCW (quasi-continuous wave) unmounted diode laser bars emitting at 900 nm.

With 90% fill-factor, they are suitable for integration into solid-state laser pumping applications (specifically Yb:sFAP single fibre array packaged) as well as direct-diode target illumination markets.

In work at the Lawrence Livermore National Laboratory they have delivered 100 W peak power at a wavelength of 900 nm at 115 A drive current. The pulse width was 1000 ms at 1% duty cycle. The power conversion efficiency was 45%, the spectral width was less than 3 nm FWHM and the beam divergence was less than 35° by 10° FWHM.



Pictured - Coherent's 100 W 900 nm unmounted laser diode bars.

(The initial results were presented at the *Advanced Solid-State Lasers Conference 2001* in Seattle, WA, USA in January in the paper TuC5 "*Laser Diode Array Packages in Silicon Using V-Groove Technology*" by B L Freitas *et al*).

nLight opens pump laser fab

nLight Photonics (Seattle, WA, USA) - founded in July 2000 to develop Raman amplifiers - has opened its new 57,000 ft^2 fabrication plant in Vancouver, WA, USA (nearby to the chip manufacturing infrastructure and skilled labour of Portland, OR, USA).

The new Vancouver pump laser fabrication plant includes 22,000 ft^2 of class 1000 cleanroom area for the manufacture of the laser assembly (which then goes into pump assembly in Seattle), says vp for manufacturing Mark DeVito.

Pictured - nLight Photonics' new pump laser fab.

The manufacturing plant was completed in August and started production in October, absorbing US$9m of the US$53m launch capital (which was received from venture capitalists including: Adams Capital Management; Cedar Grove Investments; Menlo Ventures; Mohr, Davidow Ventures, and Oak Investment Partners).

nLight Photonics' president Scott Keeney said "This new facility will gives us increased control of product reliability and shortened design cycle times".

Keeney adds, "Even with the current downturn in optical component markets, we strongly believe continued investment in our capabilities and proprietary technology position us well for the industry turnaround."